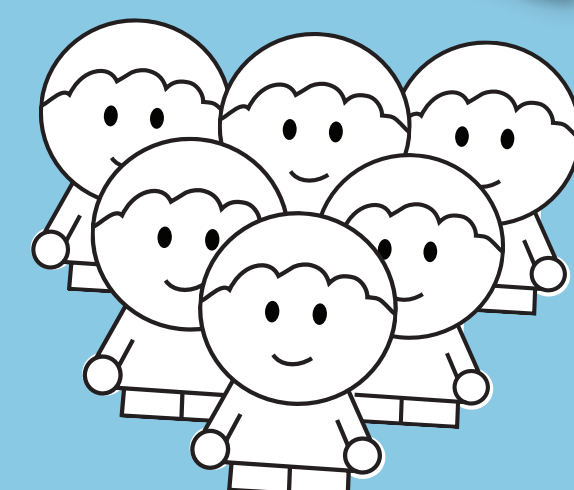




are you...?

looking to invigorate children's learning of science by developing their personal capabilities and engagement through science enquiry...

we were!



Personal Capabilities* are a range of skills and capabilities that we felt were essential to how children learn well. We realise that these capabilities are not only relevant for science. This project capitalised on the rich range of opportunities in science learning that allow for children to learn about, practice and refine their behaviours in being:

- team-workers
- communicators
- self-managers
- problem solvers
- creative thinkers

Research and innovation work into the development of Personal Capabilities in Science has been undertaken by Dr Lynne Bianchi for over a decade. Useful reading:

Bianchi, L (2002) 'Teacher's Perceptions of the teaching of Personal Capabilities through the Science Curriculum' PhD Thesis, Sheffield Hallam University.

'Smart Science' Key Stage 2 Primary resource pack for schools, Centre for Science Education, Sheffield Hallam University. Plus additional resources online.

Key Principles to make this happen in your classroom



Learning Science embraces Personal Capability development when it...

...involves practical investigations

There is a degree of 'freedom' for children and teachers to get messy, have a go and try something new or more adventurous than normal.

...encourages the children to learn through exploration
Having time to follow own lines of thinking, their own questions about the world around them in ways that they determine.

...links to the real world
Children can see the point for what they're learning, it has relevance to their lives and the lives of their school, community and families.

Learning Science is enhanced by Personal Capability development when...

...children learn about what it means to be: a team-worker, a communicator, a self-manager, a problem solver, a creative thinker
Time is dedicated to developing the language of personal capabilities and to explore 'what it looks like to me'.

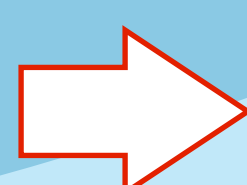
...the personal capabilities are applied and practiced
Having enough opportunity to experience the capabilities in different contexts, to explore behaviours, to reason why, to invest effort and fail a little.

...the way a child is learning Science is valued on a par with what they are learning in Science
Feedback, reward, praise, expectations and challenge are as much aligned to how children are learning as to what they have learnt.



Top Tips to get started

This diagram illustrates 3 key elements to developing Personal Capabilities in Science...



Developing Language

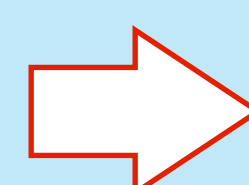
Create a Working Wall in your classroom and/or main school hall that highlights the range of Personal Capabilities.

Encourage children to build word and behaviour banks associated to each capability...e.g. What's a teamworker? What does a teamworker do?

Spend time tackling capabilities the children are less aware of by using generic tasks or fun collaborative activities that practically demonstrate and help children feel what it means to use a capability.

E.g. Creativity: Try the 'What if?' generic task:

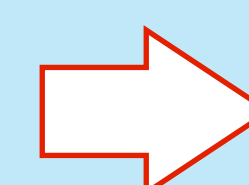
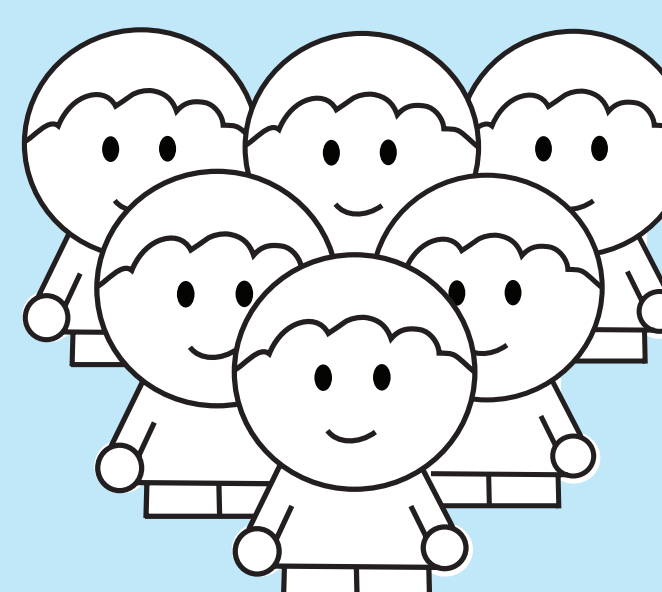
What if the world was flat? What if stars only came out once every lifetime? What if all people were boys? What if you turn people on and off with a remote control?



Rich Opportunities

Let children lead their own learning, encourage them to decide independently or collectively of how they can go about the task you set. Select which are the best times in the topic for them to do this.

Provide some open ended opportunities for children to choose a task from a selection. Allow them sufficient time to complete, with key milestones to check in with you. Be prepared to let them fail and learn through perseverance. Value effort.



Reflecting on Learning

Stand back, observe and listen. Resist the temptation to intervene too soon. Task some children as observers of their peers alongside or instead of you!

Make a priority of dedicating time in lessons and in plenaries to facilitating children to talk about how we are learning, how we are demonstrating our personal capabilities, what behaviours we are finding useful and why. Encourage the children to select which behaviours to reward and how.

Who was involved?

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